## **Amendments to the Claims**

Please amend the claims as follows (the changes in these claims are shown with strikethrough for deleted matter and <u>underlines</u> for added matter). A complete listing of the claims is listed below with the proper claim identifiers.

## 1. (Original) A modulator of the structure (I), or a salt thereof:

$$R^4$$
 $(CH)_n$ 
 $R^6$ 
 $(I)_n$ 

where m is an integer from 1 to 5;

each Y is independently selected from the group consisting of hydrogen, halogen, -CN, -NO<sub>2</sub>, -OH, -OR', -C(O)R', -CO<sub>2</sub>R', -O(CO)R', -C(O)NR'R", -OC(O)NR'R", -SR', -SOR', -SO<sub>2</sub>R', -SO<sub>2</sub>NR'R", -NR'R", -NR'C(O)R", -NR'C(O)<sub>2</sub>R", -NR'SO<sub>2</sub>R", -NR'(CO)NR"R", unsubstituted or substituted C<sub>1-8</sub> alkyl, unsubstituted or substituted C<sub>2-8</sub> alkenyl, unsubstituted or substituted C<sub>2-8</sub> alkynyl, unsubstituted or substituted C<sub>3-8</sub> cycloalkyl, unsubstituted or substituted C<sub>6-10</sub> aryl, unsubstituted or substituted 5- to 10-membered heteroaryl, and unsubstituted or substituted 3-to 10-membered heterocyclyl;

where each R', R" and R" are independently hydrogen, halogen, unsubstituted or substituted  $C_{1-8}$  alkyl, unsubstituted or substituted  $C_{6-10}$  aryl, unsubstituted or substituted 5- to 10-membered heteroaryl, and unsubstituted or substituted 3- to 10-membered heterocyclyl;

n is 0, 1, 2 or 3;

Z is  $-CHR^1R^2$ -,  $-OR^1$ , or  $-NR^1R^2$ ;

R<sup>1</sup> and R<sup>2</sup> are each independently substituted or unsubstituted alkyl or hydrogen, or Z in combination with R<sup>1</sup> and R<sup>2</sup> form a substituted or unsubstituted 5- to

8-membered ring comprising at least one nitrogen and 0 to 3 additional heteroatoms;

R<sup>6</sup> is alkyl, hydrogen, or halogen; and

 $R^3$ ,  $R^4$ , and  $R^5$  are each independently selected from the group consisting of hydrogen, halogen, -CN, -NO<sub>2</sub>, -OH, -OR', -C(O)R', -CO<sub>2</sub>R', -O(CO)R', -C(O)NR'R", -OC(O)NR'R", -SR', -SOR', -SO<sub>2</sub>R', -SO<sub>2</sub>NR'R", -NR'R", -NR'C(O)R", -NR'C(O)<sub>2</sub>R", -NR'SO<sub>2</sub>R", -NR'(CO)NR"R", unsubstituted or substituted  $C_{1-8}$  alkyl, unsubstituted or substituted  $C_{2-8}$  alkenyl, unsubstituted or substituted  $C_{2-8}$  alkenyl, unsubstituted or substituted  $C_{2-8}$  alkynyl, unsubstituted or substituted  $C_{3-8}$  cycloalkyl, unsubstituted or substituted  $C_{6-10}$  aryl, unsubstituted or substituted 5- to 10-membered heteroaryl, and unsubstituted or substituted 3- to 10-membered heterocyclyl, or where any two of  $R^3$ ,  $R^4$  or  $R^5$  together with the atoms which they substituted form a substituted or unsubstituted 3- to 10-membered heterocycyl.

- 2. (Original) The modulator of claim 1, where R<sup>6</sup> is hydrogen.
- 3. (Original) The modulator of claim 1, where  $R^6$  is substituted or unsubstituted  $C_{1-8}$  alkyl.
- 4. (Original) The modulator of claim 1, where R<sup>6</sup> is halogen.
- 5. (Original) The modulator of claim 1, where  $R^3$ ,  $R^4$ , and  $R^5$  are each independently selected from the group consisting of hydrogen, -OR', and substituted or unsubstituted  $C_{1-8}$  alkyl.
- 6. (Original) The modulator of claim 1, where R<sup>3</sup>, R<sup>4</sup>, and R<sup>5</sup> are each independently selected from the group consisting of –OR' and hydrogen.
- 7. (Original) The modulator of claim 1, where  $R^3$ ,  $R^4$ , and  $R^5$  are each -OR, where R' is substituted  $C_{1-8}$  alkyl.
- 8. (Original) The modulator of claim 1, where R<sup>4</sup> and R<sup>5</sup> together with the atom which they substitute form substituted or unsubstituted 5- to 6-membered heterocyclyl containing 1 to 2 oxygen atoms.
- 9. (Original) The modulator of claim 1, where Z is CHR<sup>1</sup>R<sup>2</sup> and where R<sup>1</sup> and R<sup>2</sup> together with Z form C<sub>3-10</sub> cycloalkyl with 0 to 3 substituents selected from the group consisting of halogen, -CN, -NO<sub>2</sub>, -OH, -OR', -C(O)R', -CO<sub>2</sub>R', -O(CO)R', -C(O)NR'R'', -NR'C(O)R'', -

NR'SO<sub>2</sub>R", -NR'(CO)NR"R", unsubstituted or substituted  $C_{1-8}$  alkyl, unsubstituted or substituted  $C_{2-8}$  alkenyl, unsubstituted or substituted  $C_{2-8}$  alkynyl, unsubstituted or substituted  $C_{3-8}$  cycloalkyl, unsubstituted or substituted  $C_{6-10}$  aryl, unsubstituted or substituted 5- to 10-membered heteroaryl, and unsubstituted or substituted 3- to 10-membered heterocyclyl.

- 10. (Original) The modulator of claim 1, where  $R^1$  and  $R^2$  together with Z form a 3- to 10-membered heterocyclyl with 0 to 3 substituents selected from the group consisting of halogen, -OR, substituted or unsubstituted  $C_{1-8}$  alkyl, substituted or unsubstituted  $C_{1-8}$  alkynyl, substituted or unsubstituted  $C_{1-8}$  alkynyl, substituted or unsubstituted  $C_{6-10}$  aryl, substituted or unsubstituted 5- to 10-membered heteroaryl.
- 11. (Original) The modulator of claim 1, where Z is -CHR<sup>1</sup>R<sup>2</sup>-.
- 12. (Original) The modulator of claim 1, where Z is  $-N R^1 R^2$ .
- 13. (Original) The modulator of claim 1, where Z in combination with R<sup>1</sup> and R<sup>2</sup> is selected from the group consisting of substituted or unsubstituted morpholinyl, substituted or unsubstituted pyrrolidinyl, substituted or unsubstituted piperidinyl, and substituted or unsubstituted piperazinyl.
- 14. (Original) The modulator of claim 1, where Z is a substituted or unsubstituted group of the formula:

15. (Original) The modulator of claim 1, where Z is a substituted or unsubstituted group of the formula:

16. (Original) The modulator of claim 1, where Z is a substituted or unsubstituted group of the formula:

17. (Original) The modulator of claim 1, where Z is a substituted or unsubstituted group of the formula:

18. (Original) The modulator of claim 1, where Z is a substituted or unsubstituted group of the formula:

19. (Original) The modulator of claim 16, where Z is a substituted or unsubstituted group of the formula:

where  $R^7$  is selected from the group consisting of hydrogen, -C(O)R',  $-CO_2R'$ , -C(O)NR'R'',  $-SO_2R'$ , unsubstituted or substituted  $C_{1-10}$  alkyl, unsubstituted or substituted  $C_{1-8}$  alkoxyl, unsubstituted or substituted  $C_{2-10}$  alkenyl, unsubstituted or substituted  $C_{2-10}$  alkynyl, unsubstituted or substituted  $C_{3-10}$  cycloalkyl, unsubstituted or substituted  $C_{6-10}$  aryl, C6-10 aryloxy unsubstituted or substituted 5- to 10-membered heteroaryl, and unsubstituted or substituted 3- to 10-membered heterocyclyl.

- 20. (Original) The modulator of claim 1, where  $R^7$  is substituted or unsubstituted  $C_{1-10}$  alkyl, substituted or unsubstituted  $C_{1-10}$  alkoxy, substituted or unsubstituted  $C_{3-10}$  cycloalkyl.
- 21. (Original) The modulator of claim 1, where n is 1, 2, or 3.
- 22. (Original) The modulator of claim 1, where m is 1 or 2, and each Y is a halogen.
- 23. (Original) The modulator of claim 1, where m is 0.

- 24. (Original) The modulator of claim 1, where substituted alkyl, substituted alkynyl and substituted cycloalkyl can each independently be substituted 1 to 3 times with halogen, -OR', -NR'R", -SR', -SiR'R"R"', -OC(O)R', -C(O)R', -CO<sub>2</sub>R', -CONR'R", -OC(O)NR'R", -NR"C(O)R', -NR'-C(O)NR"R"', -NR"C(O)<sub>2</sub>R', -S(O)<sub>2</sub>R', -S(O)<sub>2</sub>NR'R", -NR'S(O)<sub>2</sub>R", -CN, oxo (=O or -O-) or -NO<sub>2</sub>, where R', R" and R"' each independently hydrogen, halogen, unsubstituted  $C_{1-8}$  alkyl, unsubstituted  $C_{3-6}$  cycloalkyl, unsubstituted  $C_{2-8}$  alkenyl, unsubstituted or Substituted heterocyclyl.
- 25. (Original) The modulator of claim 1, where substituted aryl and substituted heteroaryl can each independently be substituted 1 to 3 times with halogen, unsubstituted or substituted alkyl, unsubstituted or substituted alkenyl, unsubstituted or substituted alkyl, -OR', oxo (=O or -O), -OC(O)R', -NR'R", -SR', -R', -CN, -NO<sub>2</sub>, -CO<sub>2</sub>R', -CONR'R", -C(O)R', -OC(O)NR'R", -NR"C(O)R', -NR"C(O)<sub>2</sub>R', -NR'-C(O)NR"R"', -NH-C(NH<sub>2</sub>)=NH, -NR'C(NH<sub>2</sub>)=NH, -NH-C(NH<sub>2</sub>)=NH, -NH-C(NH<sub>2</sub>)=NR', -S(O)<sub>2</sub>R', -S(O)<sub>2</sub>R', -S(O)<sub>2</sub>NR'R", -NR'S(O)<sub>2</sub>R" and -N<sub>3</sub>, where R', R" and R" each independently hydrogen, halogen, unsubstituted  $C_{1-8}$  alkyl, unsubstituted  $C_{3-6}$  cycloalkyl, unsubstituted  $C_{2-8}$  alkenyl, unsubstituted or substituted aryl, unsubstituted heteroaryl, unsubstituted heterocyclyl.
- 26. (Original) The modulator of claim 1, where substituted heterocyclyl can be substituted 1 to 3 times with halogen, unsubstituted or substituted alkyl, unsubstituted or substituted alkenyl, unsubstituted or substituted alkynyl, unsubstituted or substituted cycloalkyl, -OR', oxo (=O or -O), -OC(O)R', -NR'R", -SR', -R', -CN, -NO<sub>2</sub>, -OC(O)NR'R", -NR"C(O)R', -NR"C(O)<sub>2</sub>R', -NR'-C(O)NR"R", -NH-C(NH<sub>2</sub>)=NH, -NR'C(O)R', -S(O)R', -S(O)<sub>2</sub>NR'R", -NR'S(O)<sub>2</sub>R" and -N<sub>3</sub>, where R', R" and R" each independently hydrogen, halogen, unsubstituted C<sub>1-8</sub> alkyl, unsubstituted or C<sub>3-6</sub> cycloalkyl, unsubstituted C<sub>2-8</sub> alkenyl,

unsubstituted C<sub>2-8</sub> alkynyl, unsubstituted aryl, unsubstituted heteroaryl, unsubstituted heterocyclyl.

## 27. (Original) A modulator having the structure (II):

$$R^3$$
 $NR^7$ 
 $(n)$ 
 $R^5$ 
 $(II)$ 

where n=0-4

where each Y is independently hydrogen or halogen;

R<sup>3</sup>, R<sup>4</sup>, and R<sup>5</sup> are each independently R<sup>3</sup>, R<sup>4</sup>, and R<sup>5</sup> are each independently selected from the group consisting of hydrogen, halogen, and -OR';

or any two of R<sup>3</sup>, R<sup>4</sup>, and R<sup>5</sup>, together with the atoms which they substituted, form unsubstituted or substituted 3- to 10-membered heterocyclyl; and

 $R^7$  is selected from the group consisting of hydrogen, -C(O)R',  $-CO_2R'$ , -C(O)NR'R'',  $-SO_2R'$ , unsubstituted or substituted  $C_{1-8}$  alkyl (optionally C1-8 alkoxyalkyloxy, CH2CH2OCH2CH2OMe)alkyl, unsubstituted or substituted  $C_{2-8}$  alkenyl, unsubstituted or substituted  $C_{3-8}$  cycloalkyl, unsubstituted or substituted  $C_{3-8}$  cycloalkyl, unsubstituted or substituted  $C_{6-10}$  aryl, unsubstituted or substituted 5- to 10-membered heteroaryl, and unsubstituted or substituted 3- to 10-membered heterocyclyl.

- 28. (Original) The modulator of claim 27, where  $R^7$  is  $C_{1-8}$  alkoxyalkyloxy.
- 29. (Original) The modulator of claim 27, where n is 1.
- 30. (Original) A modulator comprising one of the following formulae:

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- 31. (Original) A pharmaceutical composition comprising the modulator of claim 1 and a pharmaceutically acceptable carrier.
- 32. (Original) A pharmaceutical composition comprising the modulator of claim 27 and a pharmaceutically acceptable carrier.
- 33. (Currently Amended) A pharmaceutical composition comprising the modulator of claim 2830 30 and a pharmaceutically acceptable carrier.
- 34. (Original) A pharmaceutical composition comprising a compound of the formulae:

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and a pharmaceutically acceptable carrier.

- 35. (Currently Amended) A method of inhibiting the binding of chemokines I-TAC and/or SDF-1 to a CCXCKR2 receptor, comprising contacting the composition of claim 3234 34 with a cell that expresses the CCXCKR2 receptor for a time sufficient to inhibit the binding of the chemokines to the CCXCKR2 receptor.
- 36. (Original) A method of inhibiting the binding of chemokines I-TAC and/or SDF-1 to a CCXCKR2 receptor, comprising contacting the modulator of claim 1 with a cell that expresses the CCXCKR2 receptor for a time sufficient to inhibit the binding of the chemokines to the CCXCKR2 receptor.
- 37. (Currently Amended) A method of treating cancer, comprising administering a therapeutically effective amount of the composition of claim 3234 34 to a cancer patient for a time sufficient to treat the cancer.
- 38. (Original) A method of treating cancer, comprising administering a therapeutically effective amount of the modulator of claim 1 to a cancer patient for a time sufficient to treat the cancer.